



SAW Components

SAW RF filter

Basestation

Series/type:	B5124
Ordering code:	B39741B5124U410
Date:	June 10, 2009
Version:	1.1

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SAW Components
B5124
SAW RF filter
737.0 MHz
Preliminary data sheet

Revision History: Changes compared to previous iteration issue

ISSUE	ORIGINATOR	DETAIL SPEC CHANGES	DATE
0.1	L. Pénavaire	initial release	02.06.2008
1.0	L. Pénavaire	Sample run release - Rejection from 1934 MHz to 3000 MHz specified > 15dB instead of TBD. Rejection from 762 to 780 MHz > 25 dB instead of > 20 dB	08.08.2008
1.1	P. Nicolay	Filter type and ordering code.	10.06.2009

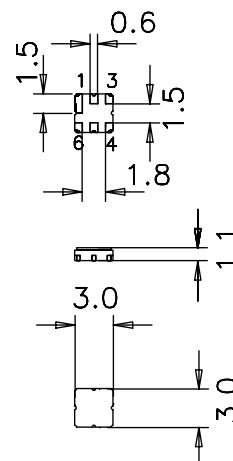
Application

- Low-loss RF filter for Basestation
- Usable band width 20 MHz



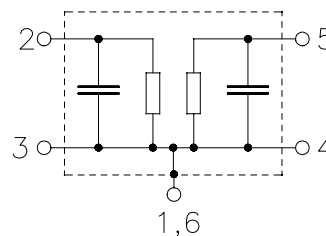
Features

- Package size 3.0 x3.0 x 1.10 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Ceramic package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

- 2 Input
- 5 Output
- 1, 3, 4, 6 To be grounded



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Characteristics

Temperature range for specification: $T = -10\text{ }^{\circ}\text{C to } +85\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 50\text{ }\Omega$

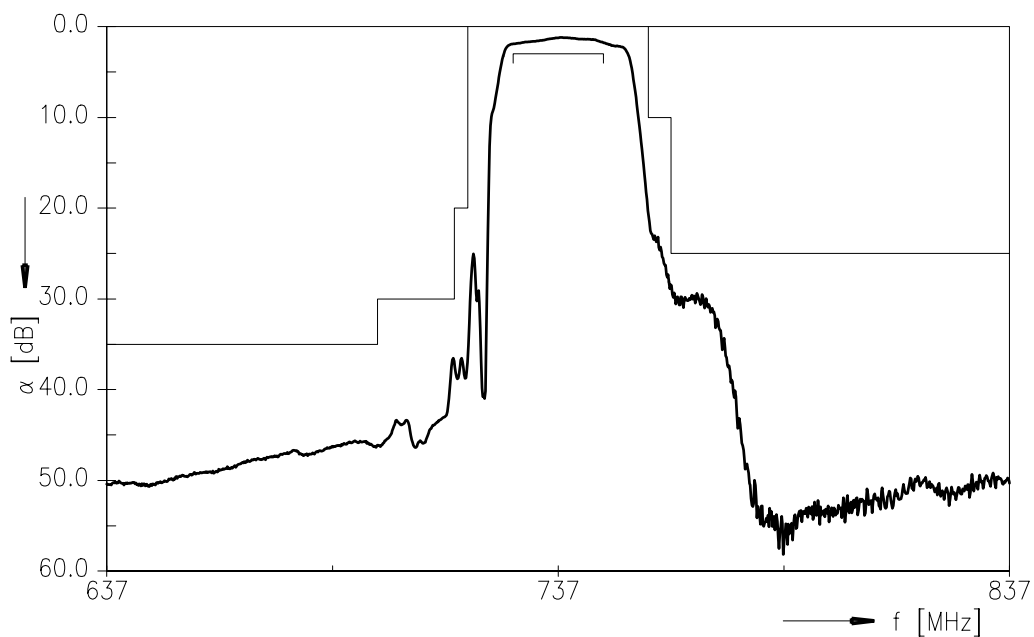
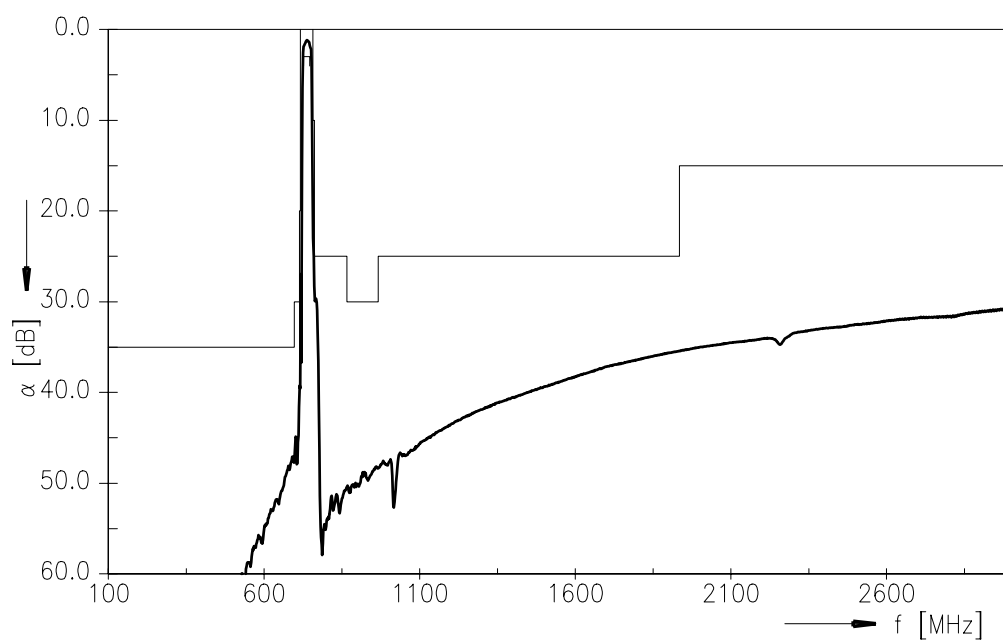
		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	737.0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
$f_N \pm 10\text{ MHz}$		—	1.9	3.0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 10\text{ MHz}$		—	0.7	1.5	dB
Return loss (input / output)					
$f_N \pm 10\text{ MHz}$		9	11	—	
Absolute attenuation	α				
0.3 ... 697.0 MHz		35	45	—	dB
697.0 ... 714.0 MHz		30	37	—	dB
714.0 ... 717.0 MHz		20	25	—	dB
757.0 ... 762.0 MHz		10	20	—	dB
762.0 ... 866.0 MHz		25	28	—	dB
866.0 ... 967.0 MHz		30	45	—	dB
967.0 ... 1934.0 MHz		25	35	—	dB
1934.0 ... 3000.0 MHz		15	30	—	dB
Temperature coefficient of frequency	TC_f	—	-36	—	ppm/°K

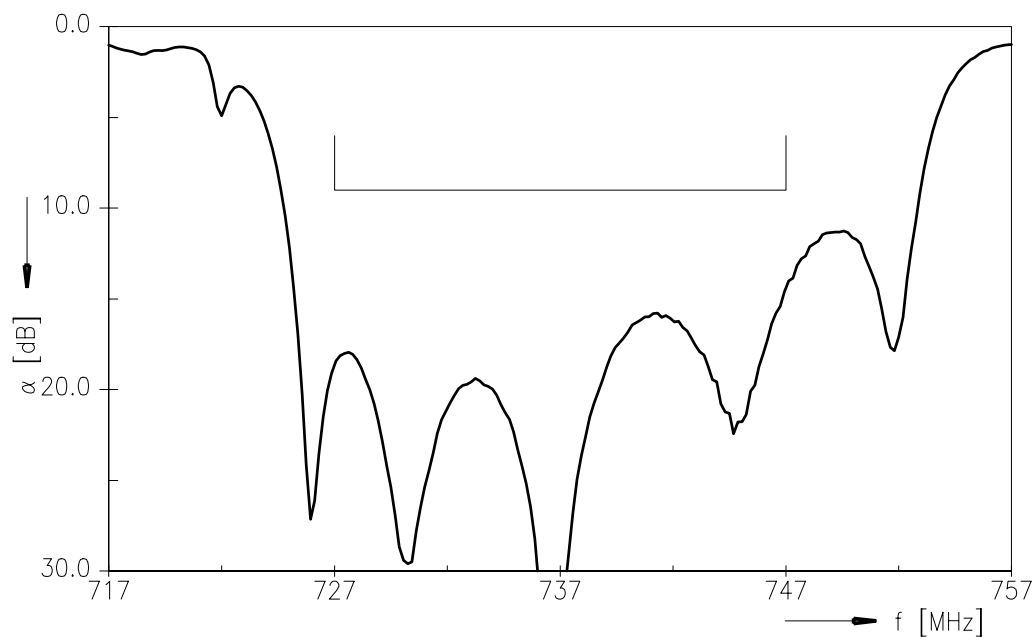
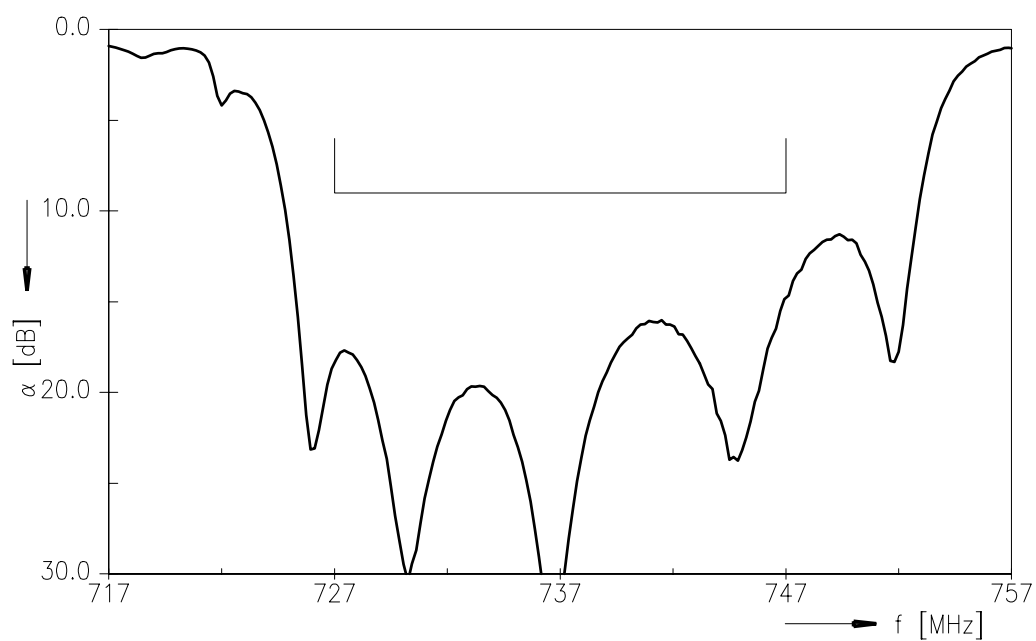
Maximum ratings

Operable temperature range	T	-40/+85	°C	machine model, 1 pulse
Storage temperature range	T_{stg}	-40/+85	°C	
DC voltage	V_{DC}	0	V	
ESD voltage	V_{ESD}	50 ¹⁾	V	
Input power	P_{IN}	10	dBm	

¹⁾ acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.

Preliminary data sheet

Transfer function (narrow band)

Transfer function (wide band)


Input return loss

Output return loss




References

Type	B5124
Ordering code	B39741B5124U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5124_NB.s2p ; B5124_WB.s2p
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."

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